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CANNED CLING PEACHES

REVISED ANALYSIS OF F. O. B. PRICE RELATIONSHIPS

Sidney Hoos and R. D. Aplin

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Sidney Hoos[1] and R. D. Aplin[2]

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CANNED CLING PEACHES
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INTRODUCTION

It is now a quarter of a century since a formal agreement was first made among participants in the canning peach industry of California to stabilize the production-marketing of canned cling peaches. That first agreement was concerned with grading and was formalized by a legal agreement between various canners. Since then and with the introduction of federal and state marketing programs, formal agreements were in effect for most years; exceptions were 1929, 1932, 1935, 1938, and the war years 1943 to 1945.3/

This is not the place to consider in detail the various marketing agreements, orders, and programs. But it is pertinent to note that when the programs--whether under federal or state jurisdiction--were initiated, the legislation permitting them specified that various types of economic analyses were called for to support the introduction and continuation of the programs. In that respect, the California canned cling peach industry used various types of economic information. Included with such information were various economic-statistical analyses of f.o.b. prices of canned cling peaches. Those reports, issued annually since the late 1930's, except for the war years, were used by growers, canners, distributors, and purchasers of canned cling peaches. The reports were used, along with other economic and market information, to evaluate the current market situation and appraise its outlook.

In order to provide the cling peach industry with market information, the economic-statistical analyses of the f.o.b. prices of canned cling peaches were

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3/ "Preliminary Report by W. S. Everts, Manager, Cling Peach Advisory Board, Covering Operations of the 1952 Season." Cling Peach Advisory Board, September 9, 1952, San Francisco, California.

Hoos, Sidney and J. N. Boles. Long-Term Trends in the Canned Clingstone Peach Industry. Berkeley, 1952. Processed. (Calif. Univ. Col. of Agr. Giannini Foundation of Agricultural Economics, Mimeographed Report 127)

revised periodically. Revisions at times were minor, and at other times more significant. The intent was to make available the most recent analysis that the current circumstances and available information permitted.4/

DATA

The objective of this report is to introduce major revisions in the economic-statistical analysis of factors affecting the f.o.b. prices of canned cling peaches. Developments in the canned fruit industries call for their adequate reflection in the analysis, and research for and with market information has made it possible now to introduce appropriate changes in the analysis. Thus, in a sense the economic-statistical analysis is brought more in line with current needs. The market information developed with the use of the report thereby may be put on a firmer basis.

The revisions introduced may be briefly indicated as follows: the index of competing canned fruit prices has been broadened by adding canned fruit cocktail and canned freestone peaches; the relative weights applied to prices in the index of competing canned fruit prices have been revised to reflect the current relative importance of the various canned fruits; the index of United States nonagricultural income has been replaced by an index of the United States disposable income; and the base periods for the indexes of competing canned fruit prices and income have been shifted from 1935-1939 to 1947-1949.

The index of competing canned fruit prices has been broadened by adding canned freestone peaches and canned fruit cocktail to the three fruits previously included in the index, canned apricots, canned pears, and canned pineapple. The base period of the index has been shifted from the 1935-1939

4/ The latest issue in the series is Hoos, Sidney. Statistical Analyses of the Annual Average F.O.B. Prices of Canned Clingstone Peaches, 1924-25 to 1951-52. Berkeley, 1952. (Calif. Univ. Col. of Agr. Giannini Foundation of Agricultural Economics, Mimeographed Report 132) A supplementary report is Hoos, Sidney, and J. N. Boles. Selected Statistics on California Clingstone Peaches for the 1952 Canning Season. Berkeley, 1952. Processed. (Calif. Univ. Col. of Agr. Exp. Sta.)

period to that of 1947-1949. This shift in base period from the prewar to recent postwar years is in line with current developments in other index numbers and has already been introduced in various statistical series issued by the federal government. In addition, the prices of the canned fruits in the index have been given new weights, reflecting the relative importance of the individual fruits as measured by their annual shipments. It may be noted that these changes in the index make it more acceptable in the sense that it reflects current developments.

Another change introduced concerns the measurement of national income reflected in the analysis. In the reports issued during the recent postwar years, an index of United States nonagricultural income, with the average for 1935-1939 = 100, was used. For the years beginning with 1929-30, that index now has been replaced by an index of United States disposable personal income, with the average for 1947-1949 as the base. The disposable income is derived from personal income by adjusting for tax obligations. The new base period was introduced for the same reason as noted above for the price index of competing canned fruits. It is deemed desirable to introduce the new index since many users of the report--especially the Cling Peach Advisory Board--use disposable income figures in review of the market situation. Thus, the inclusion of disposable income in the analysis should help to coordinate it with the other income information used by the industry.

During the latter half of the 1930's and also during the postwar years, fruit cocktail developed and then maintained a significant position as one of the major canned fruit items. The expansion in the production and sale of canned fruit cocktail emphasized the need for inclusion of its price in the index of competing canned prices. This was not done earlier since appropriate price data for canned fruit cocktail were not available. More adequate data have now been compiled and analyzed. Accordingly, fruit cocktail has been

introduced into the index beginning with the year 1936-37; adequate price data for earlier years are not available. The absence of fruit cocktail from the index for the years prior to 1936-37 does not impose a serious limitation, however, since in those years the volume of canned fruit cocktail was relatively less significant.

Although canned freestone peaches are not packed in as large volume as are canned cling peaches, there is evidence that competitive demand relations exist between canned freestone and canned clingstone peaches.5/ The new index of competing canned fruit prices includes canned freestone peaches beginning with the year 1940-41; earlier years were not included because of the unavailability of appropriate price data. The price data used for canned freestone peaches are f.o.b. prices of California Elberta peaches which are the most important variety of canned freestone peaches in recent years. Comparable price data for California Elbertas are not available for earlier years. Price data during those earlier years are available for canned Lovells, the most important variety of freestones then canned. Since Elbertas are the canned freestone of most importance now, the Elberta prices were used for freestone peaches during the postwar years.

The statistical data used in the report are given in complete detail in the appended tables. The footnotes to the tables explain the sources of the data and how the various series were constructed. But here it is pertinent to note that the price data for canned cling peaches, canned apricots, and canned pears, as well as the postwar data for canned fruit cocktail, are industry average prices reflecting actual experience of the canneries as reported to the Cling Peach Advisory Board or its preceding and associated agencies. The price

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5/ Hoos, Sidney, and W. G. O'Regan. Statistical Analyses of Competitive Relations Between Canned Clingstone and Canned Freestone Peaches. Berkeley, 1949. Processed. (Calif. Univ. Col. of Agr. Exp. Sta.)

data for canned fruit cocktail in the prewar years, canned freestone peaches, and canned pineapple reflect published quotations supplemented by trade information. Comparative checks of those published data suggest that they are appropriate for use in the analysis in the sense that their year-to-year changes are indicative of the market price behavior.

RESULTS

Using the revised data indicated above and shown in more detail in the appended tables, the economic-statistical analysis was revised. Various formulations of the relations between the f.o.b. prices of canned cling peaches and the various market factors related to them were considered. The results of some of these formulations are summarized in Table 12. Careful consideration of the various sets of results, giving attention to the combined views of economics, statistics, and marketing--as well as practical problems in the use of the results--suggests the presentation of the formulation whose results are described below; that formulation not only compares very favorably with others, but also has the advantage that it carries on the general understanding developed in the industry in recent years.

The results of the revised analysis selected for presentation may be summarized as follows, indicating the average market relations prevailing during the period analyzed (equation 8, Table 12).

> A change of 1,000,000 cases (24 No. 2-1/2 basis) in the domestic movement of California canned cling peaches, with both United States disporable income and competing canned fruit prices held constant, was on the average accompanied by a change in the opposite direction of about 15 cents a case in the f.o.b. price (choice No. 2-1/2) of canned cling peaches.
>
> An increase of 10 per cent in the index of United States disposable income, with both the domestic movement of California canned

cling peaches and the prices of competing canned fruits held constant, was on the average accompanied by an increase of about 37 cents a case in the f.o.b. price (choice No. 2-1/2) of California canned cling peaches.

A change of ten points in the index of prices of competing canned fruits, with both the domestic movement of California canned cling peaches and United States disposable income held constant, was on the average accompanied by a change in the same direction of about 22 cents a case in the f.o.b. price (choice No. 2-1/2) of canned clingstone peaches.

The above average price relationships are summarized in the preliminary report at this time so as to provide a convenient background for the canned cling peach industry in its discussions preparatory to the 1953-54 season. As the current season comes to a close and market data reflecting its experience become available, another report including the data for 1952-53 will be developed. That report, it is presently intended, will include a price analysis developed along the same general lines as the one here summarized.

Note: The formulations of price relationships summarized in Table 12 include the results of some experiments with variables not explicitly referred to in the above comments. Such variables include canners' carry-over at the beginning of the current season, and in terms of its level in relation to the current season's shipments as well as in relation to the just-past season's shipments. Other formulations continue the inclusion of U. S. nonagricultural income, but with the new base period of 1947-1949, rather than introducing the index of U. S. disposable income. Another variation replaces the index of competing canned fruit prices with an index of competing canned fruit shipments to reflect the impact of the market situations in canned fruits other than canned cling peaches. A detailed comparative analysis of these various formulations is not intended here. It may be noted, however, that in terms of application and utility in projection the formulation whose price relationships are summarized above compares favorably with the other formulations, and has the advantage of being related to an hypothesis of market price behavior which is generally familiar to the industry. Yet, continued development of and experimentation with various formulations are intended so as to approach one which is adequately acceptable from the combined views of economics, statistics, and marketing.

TABLE 1

F.O.B. Prices of Canned Cling Peaches and Related Economic Variables

Marketing year, June through May	F.o.b. price of canned cling peaches (choice 2-1/2)	Domestic movement of California cling peaches (24 No. 2-1/2 basis)	Index of United States disposable income	Index of competing canned fruit prices
	1	2	3	4
	dollars per case	millions of cases	1947-1949=100	
1924-25	4.72	4.607	34.5	235.7
1925-26	4.23	7.484	37.5	186.8
1926-27	4.10	8.599	38.3	188.7
1927-28	3.45	10.867	38.6	176.4
1928-29	3.50	10.490	40.1	169.8
1929-30	4.57	7.483	41.7	177.3
1930-31	3.20	9.257	36.5	168.0
1931-32	2.80	5.976	29.6	159.7
1932-33	2.15	8.148	24.8	184.3
1933-34	2.49	7.415	25.9	199.4
1934-35	2.88	7.685	29.3	189.8
1935-36	2.66	8.452	33.2	163.4
1936-37	2.79	9.358	36.7	147.0
1937-38	3.11	6.854	36.5	157.5
1938-39	2.44	10.127	36.3	139.4
1939-40	2.56	8.673	38.7	143.4
1940-41	2.43	11.433	43.8	125.3
(War years)				
1947-48	4.78	13.843	95.6	108.2
1948-49	5.10	12.382	102.1	102.8
1949-50	4.07	15.849	102.3	89.5
1950-51	5.17	14.305	116.4	90.1
1951-52	5.53	13.402	123.0	84.9

Sources:

Col. 1: Table 3, column 1.

Col. 2: Table 5, column 1.

Col. 3: Table 4, column 4.

Col. 4: For sources and method of construction, see Table 4.

TABLE 2

Actual and Estimated F.O.B. Prices of California Canned Cling Peaches, Choice No. 2-1/2, 1924-25 to 1951-52 (Excluding 1941-42 through 1946-47)

Marketing year, June through May	Actual price	Estimated price	Difference: column 1 minus column 2	Percentage difference: column 3 as per cent of column 1
	1	2	3	4
	dollars per case			per cent
1924-25	4.72	5.13	-.41	- 8.7
1925-26	4.23	3.92	.31	7.3
1926-27	4.10	3.88	.22	5.4
1927-28	3.45	3.28	.17	4.9
1928-29	3.50	3.34	.16	4.6
1929-30	4.57	4.12	.45	9.8
1930-31	3.20	3.13	.07	2.2
1931-32	2.80	2.63	.17	6.1
1932-33	2.15	2.16	-.01	- 0.5
1933-34	2.49	2.78	-.29	-11.6
1934-35	2.88	3.00	-.12	- 4.2
1935-36	2.66	2.78	-.12	- 4.5
1936-37	2.79	2.67	.12	4.3
1937-38	3.11	3.26	-.15	- 4.8
1938-39	2.44	2.34	.10	4.1
1939-40	2.56	2.90	-.34	-13.3
1940-41	2.43	2.55	-.12	- 4.9
(War years)				
1947-48	4.78	4.83	-.05	- 1.0
1948-49	5.10	5.19	-.09	- 1.8
1949-50	4.07	4.37	-.30	- 7.4
1950-51	5.17	5.12	.05	1.0
1951-52	5.53	5.36	.17	3.1

Sources:

Col. 1: Table 1, column 1.

Col. 2: Estimated by use of data in Table 1 applied to equation (8) in Table 12.

Col. 3: Column 1 minus column 2.

Col. 4: Column 3 as per cent of column 1.

TABLE 3

F.O.B. Prices of Canned Fruits, from 1924-25

Marketing year, June through May	California cling peaches (choice 2½)	California apricots	Pacific Coast pears	California freestone peaches (Elberta choice 2½)	California fruit cocktail (choice 2½)	Hawaiian pineapple (sliced fancy, 2½ f.o.b. San Francisco)
		Average all grades and sizes				
	1	2	3	4	5	6
	dollars per case					
1924-25	4.72	3.91	5.40			5.20
1925-26	4.23	3.72	5.44			4.30
1926-27	4.10	3.85	4.31			4.70
1927-28	3.45	3.97	4.60			4.20
1928-29	3.50	3.67	4.13			4.40
1929-30	4.57	3.97	4.82			4.70
1930-31	3.20	3.32	3.53			4.00
1931-32	2.80	2.64	2.82			3.00
1932-33	2.15	2.23	2.48			3.10
1933-34	2.49	2.37	2.64			3.60
1934-35	2.88	3.47	3.05			3.60
1935-36	2.66	2.93	2.92			3.60
1936-37	2.79	2.75	2.92		3.90	3.60
1937-38	3.11	3.02	3.07		4.00	3.80
1938-39	2.44	2.55	2.77		3.40	3.40
1939-40	2.56	2.77	3.27		3.75	3.60
1940-41	2.43	3.23	3.06	3.20	3.35	3.60
(War years)						
1947-48	4.78	5.20	7.07	5.60	6.90	6.10
1948-49	5.10	4.55	7.37	6.10	6.65	6.80
1949-50	4.07	4.11	5.15	5.08	5.70	6.40
1950-51	5.17	4.83	6.90	6.10	6.65	6.80
1951-52	5.53	5.29	6.40	6.20	6.68	6.80

Sources:

Col. 1: Based on data compiled by the Cling Peach Advisory Board from reports by California canners as reported in Hoos, Sidney, Statistical Analysis of the Annual Average F.O.B. Prices of Canned Clingstone Peaches, 1924-25 to 1951-52. July, 1952, Giannini Foundation Mimeographed Report 132.

Col. 2: Compiled by Cling Peach Advisory Board from reports by canners as reported in Hoos, Sidney, Statistical Analysis of the Annual Average F.O.B. Prices of Canned Apricots, 1926-27 to 1951-52. July, 1952, Giannini Foundation Mimeographed Report 133. For years 1924-25, 1925-26 and 1940-41 from Hoos, Sidney and Irving Dubov, Indexes of Competing Canned Fruit Prices. Giannini Foundation Report, October, 1949.

Col. 3: Compiled from canner reports by Canners League of California and Northwest Canners Association, as reported in Hoos, Sidney, Statistical Analysis of the Annual Average F.O.B. Prices Pacific Coast Canned Pears, 1926-27 to 1951-52. July, 1952, Giannini Foundation Mimeographed Report 135. For years 1924-25, 1925-26, and 1940-41 from Hoos, Sidney and Irving Dubov, Indexes of Competing Canned Fruit Prices. Giannini Foundation Report, October, 1949.

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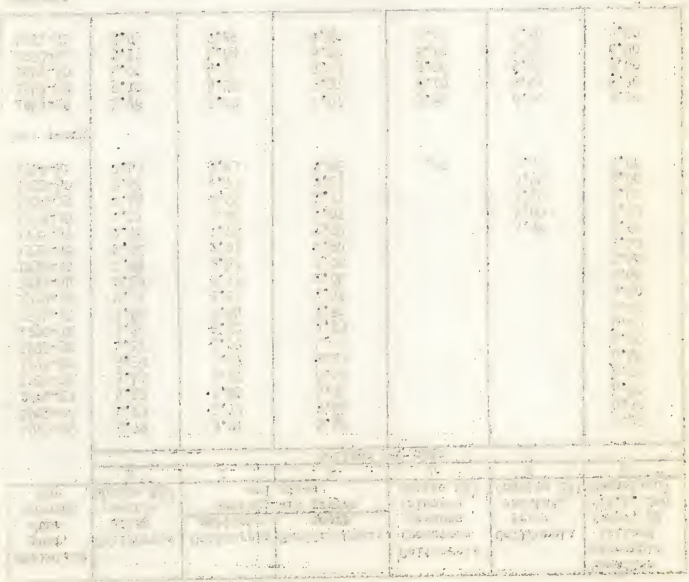

Table 3 continued.

Col. 4: California Fruit News, supplemented by trade information.

Col. 5: Years from 1936-37 to 1940-41, published quotations from California Fruit News. Years from 1947-48 to 1951-52 based on information compiled by the Cling Peach Advisory Board from canners reports.

Col. 6: Hoos, Sidney, Statistical Analysis of the Annual Average F.O.B. Prices of Canned Clingstone Peaches, 1924-25 to 1951-52, July, 1952, Giannini Foundation Mimeographed Report 132.

TABLE 4

Construction of Revised Index of Prices of Canned Fruits
Competing with Canned Cling Peaches

Marketing year, June through May	Weighted average prices of competing canned fruits		United States disposable income		Revised index of competing canned fruit prices (1947-49=100)
	Dollars per case	Relatives 1947-49=100	Billions of dollars	Index 1947-49=100	
	1	2	3	4	5
1924-25	5.0414	81.32	64.6	34.5	235.7
1925-26	4.3438	70.06	70.1	37.5	186.8
1926-27	4.4807	72.27	71.7	38.3	188.7
1927-28	4.2215	68.09	72.3	38.6	176.4
1928-29	4.2200	68.07	75.1	40.1	169.8
1929-30	4.5841	73.94	78.1	41.7	177.3
1930-31	3.8019	61.32	68.4	36.5	168.0
1931-32	2.9298	47.26	55.4	29.6	159.7
1932-33	2.8331	45.70	46.5	24.8	184.3
1933-34	3.2016	51.64	48.4	25.9	199.4
1934-35	3.4469	55.60	54.8	29.3	189.8
1935-36	3.3635	54.25	62.1	33.2	163.4
1936-37	3.3452	53.96	68.6	36.7	147.0
1937-38	3.5628	57.47	68.3	36.5	157.5
1938-39	3.1380	50.61	67.9	36.3	139.4
1939-40	3.4407	55.50	72.4	38.7	143.4
1940-41	3.4020	54.87	82.0	43.8	125.3
(War years)					
1947-48	6.4149	103.47	178.9	95.6	108.2
1948-49	6.5078	104.97	191.1	102.1	102.8
1949-50	5.6766	91.56	191.5	102.3	89.5
1950-51	6.4986	104.82	217.8	116.4	90.1
1951-52	6.4772	104.47	230.2	123.0	84.9

Sources:

Col. 1: Canned fruit (other than clings) prices weighted by their corresponding shipments. F.o.b. prices (other than clings) given in Table 3 weighted by corresponding domestic shipments given in Table 5.

Col. 2: Column 1 figures expressed as percentages with 1947-1949=100.

Col. 3: Based on income data published in U.S. Dept. of Commerce, Survey of Current Business. Years 1924-25 through 1928-29, U.S. Non-Agricultural Income; 1929-30 through 1951-52, U.S. Disposable Personal Income.

Col. 4: Column 3 figures expressed as percentages with 1947-1949=100.

Col. 5: Column 2 as a per cent of column 4.

TABLE 5

Canners' Domestic Shipments of Canned Fruits, from 1924-25

Marketing year, June through May	California cling peaches	California apricots	Pacific Coast pears	California freestone peaches	California fruit cocktail	Pine[a/] apple	Total	Total, excluding California cling peaches
	1	2	3	4	5	6	7	8
	thousands of cases; 24 No. 2-1/2 basis							
1924-25	4,607	1,235	1,014			6,611	13,467	8,860
1925-26	7,484	1,755	1,293			6,611	17,143	9,659
1926-27	8,599	2,038	1,957			7,465	20,059	11,460
1927-28	10,867	1,779	1,637			8,603	22,886	12,019
1928-29	10,490	2,195	2,170			7,876	22,731	12,241
1929-30	7,483	2,259	2,383			7,616	19,741	12,258
1930-31	9,257	2,183	2,617			8,994	23,051	13,794
1931-32	5,976	1,541	1,990			9,525	19,032	13,056
1932-33	8,148	1,521	2,200			6,270	18,139	9,991
1933-34	7,415	2,034	2,767			8,327	20,543	13,128
1934-35	7,685	1,477	2,984			7,500	19,646	11,961
1935-36	8,452	1,951	2,670			8,600	21,673	13,221
1936-37	9,358	2,992	3,997		1,450	10,400	28,197	18,839
1937-38	6,854	2,901	2,681		1,589	9,100	23,125	16,271
1938-39	10,127	2,562	3,114		2,070	8,200	26,073	15,946
1939-40	8,673	2,640	2,768		2,151	10,100	26,332	17,659
1940-41	11,433	2,012	4,150	1,233	4,448	11,500	34,776	23,343
(War years)								
1947-48	13,843	2,415	4,866	1,291	8,770	10,100	41,285	27,442
1948-49	12,382	3,528	3,660	1,690	6,732	11,500	39,492	27,110
1949-50	15,849	3,072	5,613	1,493	7,021	11,900	44,948	29,099
1950-51	14,305	3,566	4,815	1,896	8,003	12,400	44,985	30,680
1951-52	13,402	3,374	4,354	2,471	6,448	11,500	41,549	28,147

a/ Packers and importers shipments for domestic civilian consumption.

Sources:

Col. 1: Table 6, column 7.

Col. 2: Table 8, column 7.

Col. 3: Table 7, column 7.

Col. 4: Table 9, column 7.

Col. 5: Table 10, column 3.

Col. 6: For years 1924-25 and 1925-26, average of the corresponding two-year packs compiled by Pineappl Growers Association of Hawaii as reported by trade sources.

For years 1926-27 through 1933-34, from Wellman, H.R., Statistical Analysis of the Annual Average F.O.B. Prices of California Canned Apricots, 1926-27 to 1936-37. June, 1937, Giannini Foundation Mimeographed Report 60. Figures are shipments from Hawaii to United States for July through June and converted at 55 pounds per case.

(Continued next page.)

Table 5 continued.

For years 1934-35 through 1949-50, Packers' and Importer's Shipments for Domestic Civilian Consumption, Fruit and Vegetable Canning Industries, 1934-35, Industrial Series No. 15, Bureau of Foreign and Domestic Commerce, U. S. Dept. of Commerce, and Canned Fruits and Vegetables Industry Reports, Office of Industry and Commerce, U. S. Dept. of Commerce from: Pineapple Grower's Association of Hawaii, Bulletin No. 207.

For years 1950-51 and 1951-52, as compiled from trade sources.

Col. 7: Sum of columns 1 through 6.

Col. 8: Column 7 minus column 1.

TABLE 6

Canners' Pack, Carry-Over, Shipments, and Exports of California Canned Cling Peaches, from 1924-25

Marketing year, June through May	Pack	Canners' stocks on hand at beginning of year	Total supply	Canners' stocks on hand at end of year	Total movement from canners hands	United States exports	Domestic movements
	1	2	3	4	5	6	7
	thousands of cases; 24 No. 2-1/2 basis						
1924-25		1,391		709			4,607
1925-26		709		449			7,484
1926-27		449		3,730			8,599
1927-28	10,499	3,730	14,229	1,322	12,907	2,040	10,867
1928-29	14,439	1,322	15,761	3,109	12,652	2,162	10,490
1929-30	7,724	3,109	10,833	1,629	9,204	1,721	7,483
1930-31	13,174	1,629	14,803	3,922	10,881	1,624	9,257
1931-32	8,349	3,922	12,271	4,826	7,445	1,469	5,976
1932-33	6,414	4,826	11,240	1,359	9,881	1,733	8,148
1933-34	10,244	1,359	11,603	2,389	9,214	1,799	7,415
1934-35	8,258	2,389	10,647	1,836	8,811	1,126	7,685
1935-36	10,850	1,836	12,686	1,929	10,757	2,305	8,452
1936-37	10,236	1,929	12,165	1,498	10,667	1,309	9,358
1937-38	12,205	1,498	13,703	5,578	8,125	1,271	6,854
1938-39	9,446	5,578	15,024	2,737	12,287	2,160	10,127
1939-40	10,579	2,737	13,316	2,690	10,626	1,953	8,673
1940-41	9,608	2,690	12,299	779	11,520	87	11,433
(War years)							
1947-48	15,309	456	15,765	1,247	14,518	675	13,843
1948-49	14,650	1,247	15,897	3,061	12,836	454	12,382
1949-50	16,525	3,061	19,585	2,058	16,332[a]	483	15,849
1950-51	14,417	2,058	16,475	531	14,771[b]	466	14,305
1951-52	19,145	531	19,676	3,418	13,842[c]	440	13,402

a/ Excludes government school lunch purchases of 865,000 cases in June, 1949-March, 1950, and an additional 331,000 cases in April, 1950. If school lunch purchases were included, total movement would be 17,528,219 cases.

b/ Excludes government purchases of 1,172,766 cases. If government purchases were included, total movement would be 15,943,675 cases.

c/ Excludes government purchases of 2,416,000 cases (1,970,000 quartermaster and 446,000 school lunch). If government purchases were included, total movement would be 16,258,400 cases.

Sources:

Cols. 1, 2, and 4: Canners League of California as reported in Hoos, Sidney and J. N. Boles. Selected Statistics on California Clingstone Peaches for the 1952 Canning Season, July, 1952, Giannini Foundation Mimeographed Report.

(Continued on next page.)

Table 6 continued.

Col. 3: Column 1 plus column 2.

Col. 5: Column 3 minus column 4.

Col. 6: U. S. Department of Commerce, Monthly Summary of Foreign Commerce of the United States, as reported in Hoos, Sidney. Statistical Analysis of the Annual Average F.O.B. Prices of Canned Clingstone Peaches, 1924-25 to 1951-52, July, 1952, Giannini Foundation Mimeographed Report 132. (All exports considered to be clings since no breakdown between clings and frees available.)

Col. 7: Column 5 minus column 6. For years 1924-25, 1925-26, and 1926-27, from Hoos, Sidney and Irving Dubov. Indexes of Competing Canned Fruit Prices, Giannini Foundation Report, October, 1949, as compiled by Canners League of California and Cling Peach Advisory Board.

TABLE 7

Canners' Pack, Carry-Over, Shipments, and Exports of Pacific Coast Canned Pears, from 1924-25

Marketing year, June through May	Pack	Canners' stocks on hand at beginning of year	Total supply	Canners' stocks on hand at end of year	Total movement from canners' hands	United States exports	Domestic movements
	1	2	3	4	5	6	7
	thousands of cases; 24 No. 2-1/2 basis						
1924-25		142		51			1,014
1925-26		51		507			1,293
1926-27	3,260	507	3,767	401	3,366	1,409	1,957
1927-28	2,639	401	3,040	167	2,873	1,236	1,637
1928-29	4,116	167	4,283	292	3,991	1,821	2,170
1929-30	4,206	292	4,498	952	3,546	1,163	2,383
1930-31	4,153	952	5,105	893	4,212	1,595	2,617
1931-32	3,635	893	4,528	870	3,658	1,668	1,990
1932-33	3,117	870	3,987	429	3,558	1,358	2,200
1933-34	4,377	429	4,806	273	4,533	1,766	2,767
1934-35	5,505	273	5,778	1,291	4,487	1,503	2,984
1935-36	4,230	1,291	5,521	957	4,564	1,894	2,670
1936-37	5,355	957	6,312	850	5,462	1,465	3,997
1937-38	4,321	850	5,171	1,150	4,021	1,340	2,681
1938-39	4,090	1,150	5,240	400	4,840	1,726	3,114
1939-40	4,057	400	4,457	280	4,177	1,409	2,768
1940-41 (War years)							4,150
1947-48	5,622	200	5,822	726	5,096	230	4,866
1948-49	3,831	726	4,557	761	3,796	136	3,660
1949-50	5,459	761	6,220	448	5,772	159	5,613
1950-51	6,048	448	6,496	566	5,930	215	4,815a/
1951-52	6,215	566	6,781	1,575	5,206	95	4,354a/

a/ Excludes 900,549 cases in 1950-51 and 758,000 cases in 1951-52 purchased by U. S. Defense Department (Quartermaster Corps). If quartermaster purchases were included, domestic shipments would amount to 5,715,000 cases in 1950-51 and 5,111,679 cases in 1951-52.

Sources: As reported in Hoos, Sidney, Statistical Analysis of the Annual Average F.O.B. Prices of Pacific Coast Canned Pears, 1926-27 to 1951-52. July, 1952, Giannini Foundation Mimeographed Report 135:

Cols. 1, 2 and 4: Compiled from reports of Canners League of California and Northwest Canners Association.

Col. 3: Column 1 plus column 2.

Col. 5: Column 3 minus column 4.

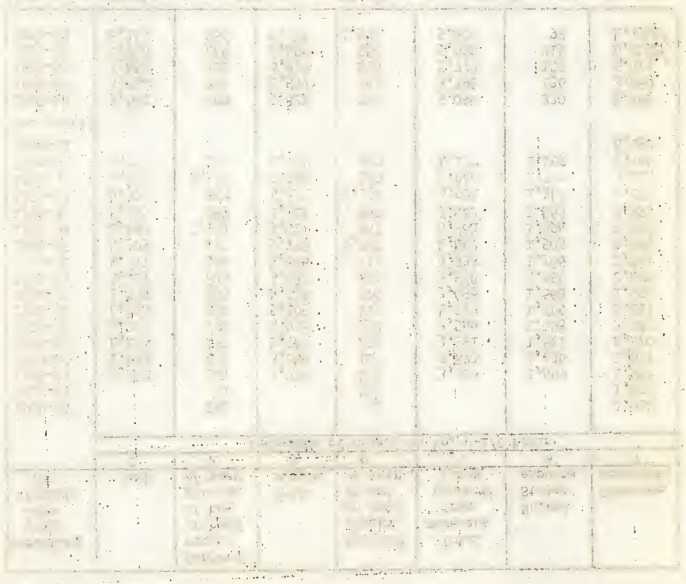

Table 7 continued.

Col. 6: Compiled from U. S. Department of Commerce, Monthly Summary of Foreign Commerce of the United States. (Exports converted at 45 pounds per No. 2-1/2 equivalent case, April-May, 1952, exports estimated) as reported in Hoos, Sidney, Giannini Foundation Mimeographed Report 135.

Col. 7: Column 5 minus column 6. For the years 1924-25, 1925-26, and 1940-41, from Hoos, Sidney and Irving Dubov, Indexes of Competing Canned Fruit Prices. Giannini Foundation Report, October, 1949, as compiled by Canners League of California and Cling Peach Advisory Board.

TABLE 8

Canners' Pack, Carry-Over, Shipments, and Exports of California Canned Apricots, from 1924-25

Marketing year, June through May	Pack	Canners' stocks on hand at beginning of year	Total Supply	Canners' stocks on hand at end of year	Total movement from canners hands	United States exports	Domestic movements
	1	2	3	4	5	6	7
	thousands of cases; 24 No. 2-1/2 basis						
1924-25		298		315			1,235
1925-26		315		21			1,755
1926-27	3,227	21	3,248	401	2,847	809	2,038
1927-28	2,960	401	3,361	952	2,409	630	1,779
1928-29	1,991	952	2,943	154	2,789	594	2,195
1929-30	4,023	154	4,177	1,189	2,988	729	2,259
1930-31	1,954	1,189	3,143	546	2,597	414	2,183
1931-32	2,006	546	2,552	515	2,037	496	1,541
1932-33	1,805	515	2,320	323	1,997	476	1,521
1933-34	2,416	323	2,739	167	2,572	538	2,034
1934-35	1,774	167	1,941	227	1,714	237	1,477
1935-36	3,164	227	3,391	844	2,547	596	1,951
1936-37	2,899	844	3,743	228	3,515	523	2,992
1937-38	5,553	228	5,781	2,305	3,476	575	2,901
1938-39	1,547	2,305	3,852	528	3,324	762	2,562
1939-40	3,338	528	3,866	479	3,387	747	2,640
1940-41							2,012
(War years)							
1947-48	3,063	279	3,342	639	2,703	288	2,415
1948-49	4,651	639	5,290	1,508	3,782	254	3,528
1949-50	2,307	1,508	3,815	532	3,283	211	3,072
1950-51	3,661	532	4,193	115	4,078	135	3,566a/
1951-52	4,538	115	4,653	614	4,039	145	3,374b/

a/ Excludes United States government (quartermaster) purchases of 375,564 cases; if government purchases were included, total domestic shipments would be 3,942,072 cases.

b/ Excludes United States government (quartermaster) purchases of 520,000 cases; if government purchases were included, total domestic shipments would be 3,894,217 cases.

Sources: As reported in Hoos, Sidney, Statistical Analysis of the Annual Average F.O.B. Prices of Canned Apricots, 1926-27 to 1951-52, July, 1952, Giannini Foundation Mimeographed Report 133:

Col. 1 through 5: Compiled by Canners League of California.

Col. 6: Compiled from U. S. Department of Commerce, Monthly Summary of Foreign Commerce of the United States. (Exports converted at 45 pounds per No. 2-1/2 equivalent case.) April-May, 1952, exports estimated.

(Continued on next page.)

Table 8 continued.

Col. 7: Column 5 minus column 6. For years 1924-25, 1925-26, and 1940-41 from Hoos, Sidney and Irving Dubov. Indexes of Competing Canned Fruit Prices, Giannini Foundation Report, October, 1949, as compiled by Canners League of California and Cling Peach Advisory Board.

TABLE 9

Canners' Pack, Carry-Over, Shipments, and Exports of California Canned Freestone Peaches, from 1924-25

Marketing year, June through May	Pack	Canners' stocks on hand at beginning of year	Total supply	Canners' stocks on hand at end of year	Total movement from canners' hands a/
	1	2	3	4	5
	thousands of cases; 24 No. 2-1/2 basis				
1924-25					1,030
1925-26					1,027
1926-27					447
1927-28	314	176	490	193	296
1928-29	157	193	350	40	310
1929-30	376	40	416	54	362
1930-31	120	54	174	29	145
1931-32	72	29	101	19	82
1932-33	23	19	42	2	40
1933-34	65	2	67	2	65
1934-35	340	2	342	21	321
1935-36	365	21	386	112	274
1936-37	475	112	587	69	518
1937-38	1,043	69	1,112	435	677
1938-39	376	435	811	269	542
1939-40	882	269	1,151	273	878
1940-41	1,134	273	1,407	174	1,233
(War years)					
1947-48	1,497	41	1,538	248	1,291
1948-49	1,708	248	1,952	265	1,690
1949-50	1,499	265	1,764	271	1,493
1950-51	1,677	271	1,948	52	1,896
1951-52	2,793	52	2,845	374	2,471

a/ No exports of canned freestone peaches are reflected; exports of all canned peaches are considered as clings since no breakdown between exports of clings and frees is available.

Sources:

Cols. 1, 2, and 4: Canners League of California as reported by Hoos, Sidney and J. N. Boles. Selected Statistics on California Clingstone Peaches for the 1952 Canning Season, July, 1952, Giannini Foundation Mimeographed Report.

Col. 3: Column 1 plus column 2.

Cols. 5: Column 3 minus column 4. For years 1924-25, 1925-26, and 1926-27 from Hoos, Sidney and Irving Dubov. Indexes of Competing Canned Fruit Prices, Giannini Foundation Report, October, 1949, as compiled by Canners League of California and Cling Peach Advisory Board.

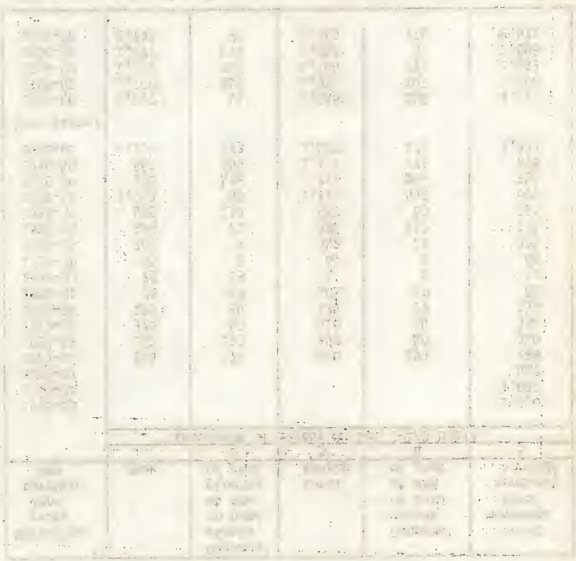

TABLE 10

California Canners' Pack, Carry-Over, Shipments, and Exports of Canned Fruit Cocktail

Marketing year, June through May	Direct pack	Remanufactured pack	Canners' carry-over on hand at beginning of year	Total supply	Canners' carry-over on hand at end of year	Total movement from canners' hands[a/]	United States exports	Domestic shipments
	1	2	3	4	5	6	7	8
	thousands of cases, 24 No. 2-1/2 basis							
1936-37	2,221			2,595	336	2,259	809	1,450
1937-38	3,078	228	336	3,642	1,295	2,347	758	1,589
1938-39	1,968	75	1,295	3,337	288	3,049	979	2,070
1939-40	3,580	73	288	3,942	747	3,195	1,044	2,151
1940-41	4,262	98	747	5,108	587	4,521	73	4,448
(War years)								
1947-48	9,324	125	62	9,511	299	9,212	442	8,770
1948-49	9,754	85	299	10,139	3,016	7,122	390	6,732
1949-50	6,135	445	3,016	9,596	2,014	7,492	471	7,021
1950-51	6,810	302	2,104	9,217	490	8,727	724	8,003
1951-52	8,999	--	490	9,488	2,335	7,153	705	6,448

a/ Movement figures may not be precisely consistent with other figures due to rounding errors.

Sources:

Cols. 1, 2, 3, and 5: Based on records of canners as compiled by Canners League of California and published in its numbered bulletins.

Col. 4: Sum of columns 1, 2, and 3.

Col. 6: Column 4 less column 5.

Col. 7: U. S. Dept. of Commerce, Bureau of Foreign and Domestic Commerce. Monthly Summary of Foreign Commerce of the U. S., June, 1936-December, 1947. U. S. Dept. of Commerce, Bureau of Census. Report FT410, U. S. Exports of Domestic and Foreign Merchandise, January, 1948-May, 1952.

Col. 8: Column 6 minus column 7.

TABLE 11

Index of Competing Canned Fruit Prices Adjusted by United States Nonagricultural Income (1947-1949=100) and Canners' Carry-Over of Clings as Per Cent of Shipments

Marketing year, June through May	Weighted average price relatives of competing canned fruits	Index of United States nonagricultural income	Index of competing canned fruit prices adjusted for United States nonagricultural income	Canners' carry-over of clings at beginning of year as per cent of shipments	
	1947-1949=100			in year just closed	in year just opened
	1	2	3	4	5
1924-25	81.32	34.7	234.4	24.9	30.2
1925-26	70.06	37.6	186.3	15.4	9.5
1926-27	72.27	38.5	187.7	6.0	5.2
1927-28	68.09	38.8	175.5	43.4	34.3
1928-29	68.07	40.3	168.9	12.2	12.6
1929-30	73.94	40.4	183.0	29.6	41.5
1930-31	61.32	35.6	172.2	21.8	17.6
1931-32	47.26	29.0	163.0	42.4	65.6
1932-33	45.70	22.8	200.4	80.8	59.2
1933-34	51.64	24.8	208.2	16.7	18.3
1934-35	55.60	27.2	204.4	32.2	31.1
1935-36	54.25	30.0	180.8	23.9	21.7
1936-37	53.96	35.5	152.0	22.8	20.6
1937-38	57.47	34.5	166.6	16.0	21.9
1938-39	50.61	34.1	148.4	81.4	55.1
1939-40	55.50	36.6	151.6	27.0	31.6
1940-41	54.87	40.7	134.8	31.0	23.5
(War years)					
1947-48	103.47	95.3	108.6	2.9	3.3
1948-49	104.97	101.5	103.4	9.0	10.1
1949-50	91.56	103.2	88.7	24.7	19.3
1950-51	104.82	116.6	89.9	13.0	14.4
1951-52	104.47	128.5	81.3	3.7	4.0

Sources:

Col. 1: Table 4, column 2.

Col. 2: Based on monthly income data as published in U. S. Dept. of Commerce, Survey of Current Business. Monthly issues and revisions.

Col. 3: Column 1 divided by column 2.

Col. 4: Table 6, column 2 divided by column 7 of preceding year.

Col. 5: Table 6, column 2 divided by column 7 for same year.

TABLE 12

California Canned Cling Peaches
Multiple Regression (Least Squares) Equations and Auxiliary Constants
(1924-25 to 1951-52, Excluding 1941-42 to 1946-47)

Equation No.	Dependent variable[a]	Constant	Independent variables[a]								$\bar{R}$
			X_2	$\log X_3$	X_4	X_5	X_6	X_7	X_8	X_9	
			net regression coefficients, with their corresponding t-ratios in parentheses and beta coefficients in brackets								
1	X_1	-12.546544	-0.165791 (4.158204) [-0.456888]	8.795729 (17.745819 [1.915341]	0.020649 (6.573821) [0.828945]						0.975
2	X_1	- 0.028735	-0.157817 (3.945067) [-0.434914]	0.753501 (0.736765) [0.164081]		0.055952 (6.689227) [1.076505]					0.975
3	X_1	-12.734455	-0.167645 (4.013719) [-0.461998]	8.881282 (14.027351) [1.933971]	0.020912 (6.100146) [0.839500]		0.010688 (0.227416) [0.014215]				0.973
4	X_1	-12.699888	-0.167898 (3.988305) [-0.462695]	8.875514 (14.145272) [1.932715]	0.020800 (6.300203) [0.835014]			0.000707 (0.217697) [0.014050]			0.973
5	X_1	-12.698562	-0.164385 (3.933525) [-0.453014]	8.847249 (14.983710) [1.926560]	0.020881 (5.971650) [0.838242]				0.000678 (0.172731) [0.011278]		0.973
6	X_1	- 7.298782	-0.193359 (5.211035) [-0.532860]	8.985765 (17.818401) [1.956723]						-0.000118 (6.698000) [-0.799536]	0.975

(Continued on next page.)

Table 12 continued.

Equation No.	Dependent variable[a]	Constant	Independent variables[a]				$\bar{R}$
			X_2	X_9	$\log X_{10}$	X_{11}	
			net regression coefficients, t-ratios in parentheses and beta coefficients in brackets				
7	X_1	- 8.897763	-0.195426 (4.937304) [-0.538556]	-0.000143 (7.265389) [-0.970461]	10.158878 (16.662804) [2.113395]		0.972
8	X_1	-13.163448	-0.153483 (3.761821) [-0.422970]		8.942665 (17.851122) [1.860381]	0.022261 (7.615164) [0.850345]	0.974

Equation No.	Dependent variable[a]	Constant	Independent variables[a]				$\bar{R}$
			$\log X_2$	$\log X_9$	$\log X_{10}$	$\log X_{11}$	
9	$\log X_1$	1.920994	-0.376174 (3.413930) [-0.391223]	-0.657144 (6.456612) [-0.883532]	1.050602 (14.172448) [1.810717]		0.957
10	$\log X_1$	- 3.799934	-0.269983 (2.883304) [-0.280784]		1.184033 (17.293769) [2.040687]	1.214587 (8.585503) [1.190621]	0.973

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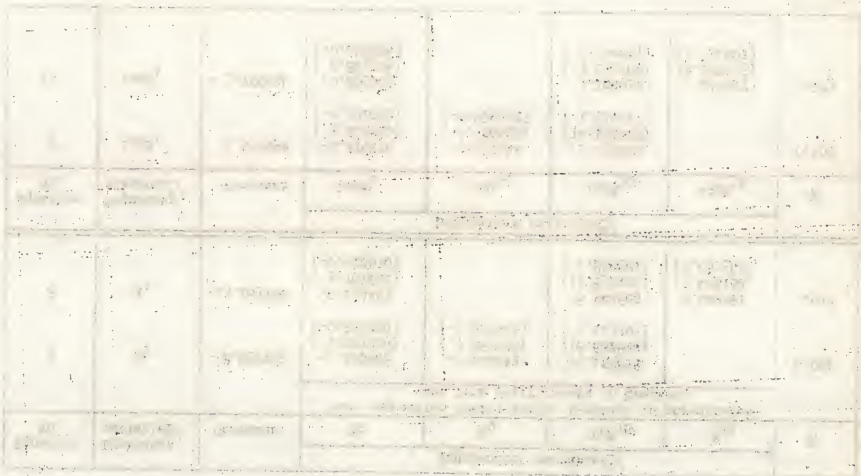


Table 12 continued.

Equation No.	Dependent variable[a]	Constant	Independent variables[a]					$\bar{R}$
			$\log X_2$	$\log X_3$	$\log X_4$	$\log X_6$	$\log X_9$	
			net regression coefficients, t-ratios in parentheses and beta coefficients in brackets					
11	$\log X_1$	-3.670558	-0.294241 (3.179647) [-0.306012]	1.176199 (16.075619) [2.121938]	1.171821 (7.631864) [1.206547]			0.972
12	$\log X_1$	-3.445575	-0.290058 (3.146232) [0.301662]	1.125995 (13.034351) (2.031367]	1.106079 (6.723956) [1.138856]	-0.017985 (1.080562) [0.066304]		0.973
13	$\log X_1$	1.741865	-0.368902 (3.643745) [-0.383660]	0.949615 (15.500108) [1.713167]			-0.573729 (6.349133) [-0.771381]	0.964

a/ Specification of variables:

X_1 = F.o.b. price of California canned cling peaches (choice 24 No. 2-1/2), in dollars per case (Table 1, column 1).

X_2 = Canners' domestic shipments of California canned cling peaches, in millions of cases, 24 No. 2-1/2 basis (Table 1, column 2).

X_3 = Index of United States nonagricultural income, 1947-1949=100 (Table 11, column 2).

X_4 = Index of competing canned fruit prices, adjusted by index of United States nonagricultural income, 1947-1949=100 (Table 11, column 3).

X_5 = Weighted average price relatives of competing canned fruits, 1947-1949=100 (Table 4, column 2).

X_6 = Canners' carry-over of cling peaches at beginning of marketing year, in millions of cases, 24 No. 2-1/2 basis (Table 6, column 2).

X_7 = Canners' carry-over of cling peaches at beginning of marketing year, as per cent of shipments in year just closed, in per cent (Table 11, column 4).

(Continued on next page.)

Table 12 continued.

X_8 = Canners' carry-over of cling peaches at beginning of marketing year, as per cent of shipments in year just beginning, in per cent (Table 11, column 5).

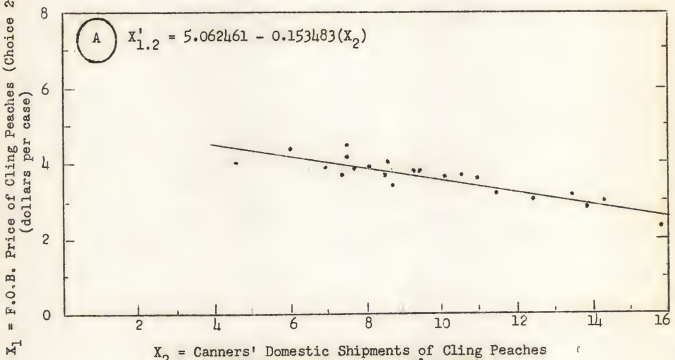
X_9 = Canners' domestic shipments of competing canned fruits, thousands of cases, 24 No. 2-1/2 basis (Table 5, column 8).

X_{10} = Index of United States disposable personal income, 1947-1949=100 (Table 1, column 3).

X_{11} = Revised index of competing canned fruit prices, adjusted by index of United States disposable personal income, 1947-1949=100 (Table 1, column 4).

FIGURE 1

Average Net Relation of Cling Peaches F.O.B. Price (Choice 2½) to:
A, Domestic Shipments of Cling Peaches;
B, United States Disposable Income;
C, Competing Canned Fruit Prices.
(For period 1924-25 to 1951-52, excluding 1941-42 to 1946-47.)


A
$X'_{1.2} = 5.062461 - 0.153483(X_2)$
X_1 = F.O.B. Price of Cling Peaches (Choice 2½) (dollars per case)
X_2 = Canners' Domestic Shipments of Cling Peaches (million cases, 24 No. 2½ basis)

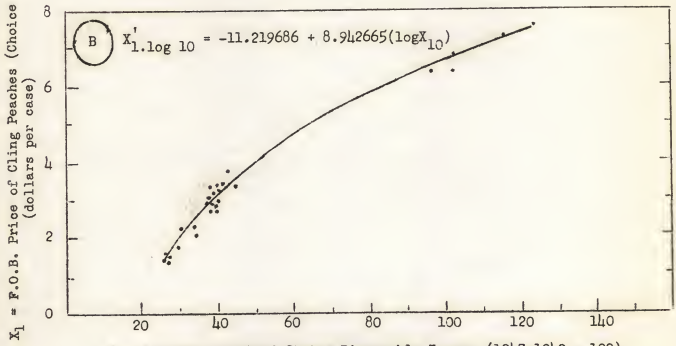

B
$X'_{1.\log 10} = -11.219686 + 8.942665(\log X_{10})$
X_1 = F.O.B. Price of Cling Peaches (Choice 2½) (dollars per case)
X_{10} = Index of United States Disposable Income (1947-1949 = 100)

Figure 1 continued.